

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P006488WOCTH	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/IB00/00869	International filing date (day/month/year) 15/06/2000	Priority date (day/month/year) 17/06/1999
International Patent Classification (IPC) or national classification and IPC C12N15/82		
<p>Applicant DANISCO A/S et al.</p> <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p> <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 		
Date of submission of the demand 04/01/2001	Date of completion of this report 18.09.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Ury, A Telephone No. +49 89 2399 8411	



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/IB00/00869

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-68 as originally filed

Claims, No.:

1-33 as originally filed

Drawings, sheets:

1/1 as originally filed

Sequence listing part of the description, pages:

1-7, filed with the letter of 25.09.00

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item:

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

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- the description, pages:
 the claims, Nos.:
 the drawings, sheets:
5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)
6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims 1-23
	No:	Claims 24-33
Inventive step (IS)	Yes:	Claims 1-23
	No:	Claims 24-33
Industrial applicability (IA)	Yes:	Claims 1-33
	No:	Claims

**2. Citations and explanations
see separate sheet**

**INTERNATIONAL PRELIMINARY
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International application No. PCT/IB00/00869

Reference is made to the following documents:

- D1: WO 97 03574 A (BUCHHOLT HANS CHRISTIAN ;KREIBERG JETTE DINA (DK); DANISCO (DK); N) 6 February 1997 (1997-02-06) cited in the application
D2: EP-A-0 271 988 (ICI PLC) 22 June 1988 (1988-06-22) cited in the application
D3: EP-A-0 577 252 (UNIV ARIZONA) 5 January 1994 (1994-01-05)

I) The present invention is based on a process for modifying a pectin by differentially regulating the level of expression of PME and PG so that the PG activity is silenced (e.g. by use of an antisense method) and an elevated ratio of PME to PG is obtained. This process (which leads to PME enriched extracts (claim 1) and PME modified pectin (claim 8) imparting increased functionality to food products in term of a lowered viscosity and a longer shelf-life) is neither disclosed nor suggested by the prior art documents cited in the ISR.
Consequently, the subject-matter of claims 1-23 is novel and inventive (Article 33.2 and 3 PCT).

II) Document D1 discloses a PME modified pectin having the same features as the PME modified pectin claimed in present claims 24, 26, 27 (see e.g. pages 8, 11-12 of D1). Page 14, lines 1-2 of D1 indeed states that the pectine is not a pectine that has been prior treated with the enzyme PG to substantially reduce the length of the pectine backbone.
The foodstuff according to claim 25 is also disclosed in D1 (see e.g. pages 10-11). As well, the uses according to present claims 31-33 are disclosed in D1 (see the relevant passages pages 5-12).

Thus, the subject-matter of claims 24-27 and 31-33 lack novelty under Article 33.2 PCT over D1.

III) Documents D2 (see e.g. pages 2-3) and D3 (see e.g. page 4) destroy the novelty Article 33.2 PCT of present claims 28-30.